2 SYSTEM DESCRIPTION

2.1 SERVICE AREA PHYSICAL DESCRIPTION

Urban Water Management Planning Act Requirement:

10631(a) Describe the service area of the supplier.

General Location Overview

The City of Paramount (City) is located in the southeastern portion of Los Angeles County, between the Los Angeles and San Gabriel Rivers. It is 12 miles north of the Ports of Los Angeles and Long Beach and 15 miles south of downtown Los Angeles. It occupies an area of approximately 4.8 square miles (2,800 acres). The predominant land use in the City is residential, with land also dedicated to commercial, industrial, municipal, parks and recreation, school, and hospital uses. Figure 2.1.1 shows the City of Paramount in a regional context.

Water System Overview

The City of Paramount has three water sources: groundwater, imported water (surface), and recycled water. The City also has emergency mutual-aid domestic water connections with the City of Long Beach, the City of Downey, and Golden State Water Company. Currently, two water utilities serve the community. The City's water department services the majority of Paramount. Two northern portions of the City, above the I-105 Freeway, are serviced by Southern California Water Company. The City boundaries, as shown in Figure 2.1.2 provides an estimate of the service area of the City of Paramount.

The City of Paramount provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's current water system that includes two wells; two imported water connections; approximately 130 miles of water transmission and distribution mains; and appurtenant valves, hydrants, and equipment. Currently the City does not have any storage reservoirs, although the groundwater basin acts as ground storage for the City.

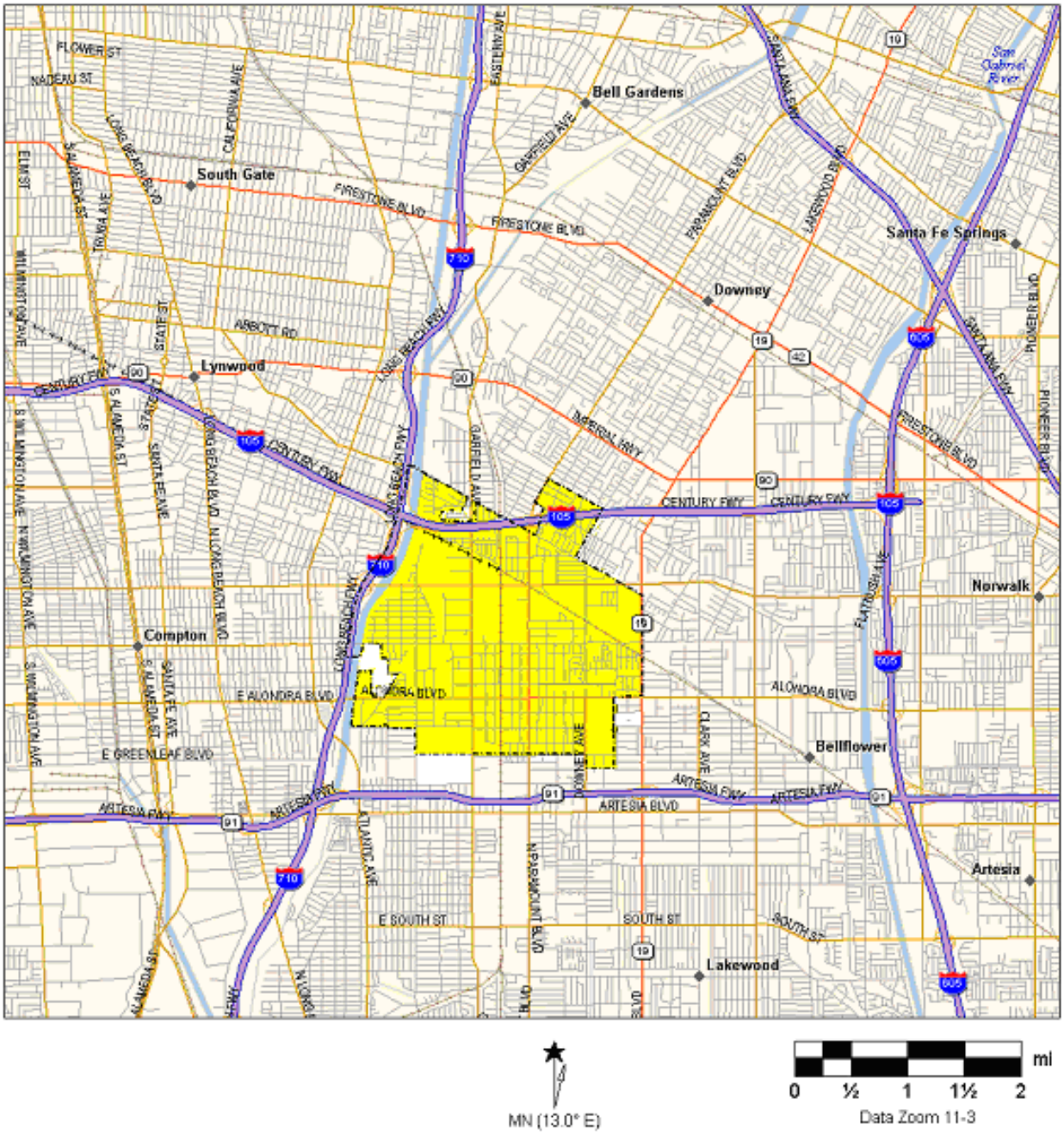
The City overlies the Central Groundwater Basin (Central Basin). Upon the Central Basin's adjudication in 1965, the City was allocated an annual pumping right, which currently stands at

5,883 acre-feet per year plus 20% carryover rights. Well No. 13 and Well No. 14 are the City's two existing groundwater wells. Table 2.1.1 provides a description of the City wells.

Table 2.1.1
Well Operating Capacities

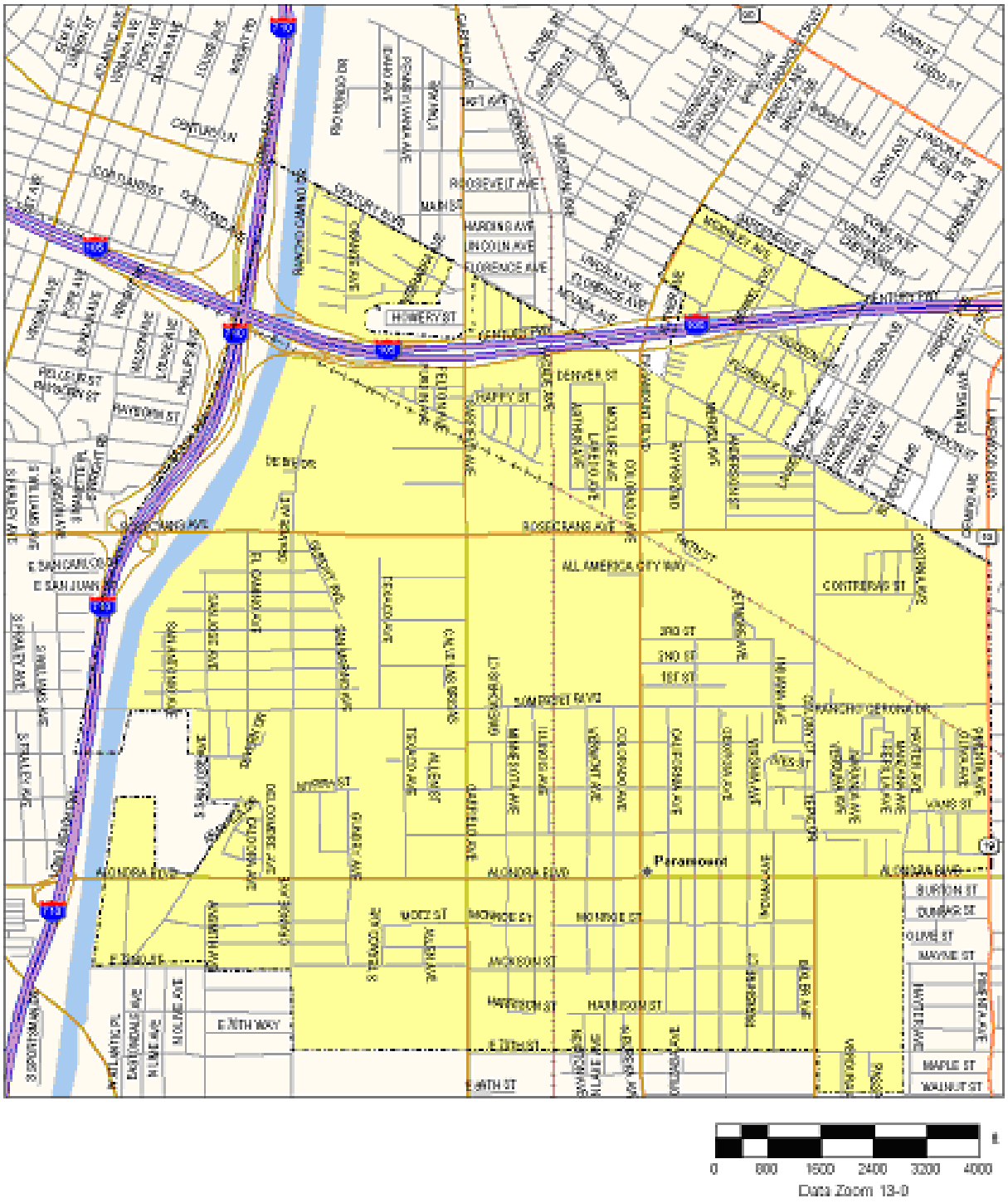
Basin Name	Gallons Per Day
City of Paramount Well 13	3,600,000
City of Paramount Well 14	4,032,000
Total	**7,632,000**

Figure 2.1.1 – The City of Paramount Regional Location[1]



[1]Not to Scale

Figure 2.1.2 – The City of Paramount Corporate Boundaries/Service Area[1]



[1]Not to Scale

2.2 SERVICE AREA CLIMATE

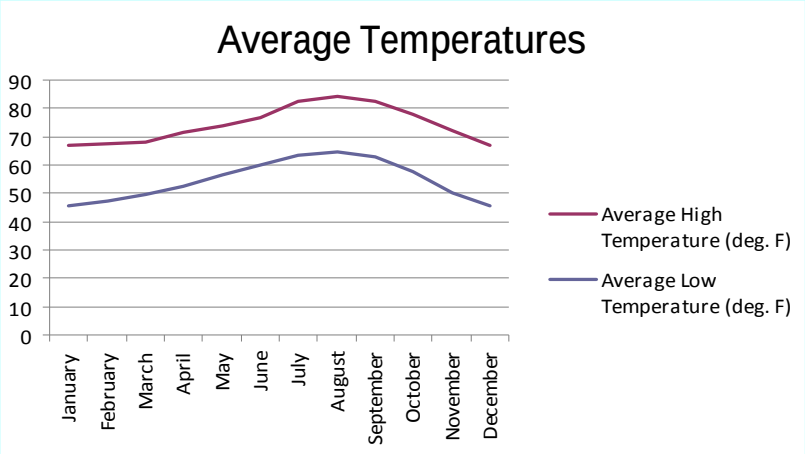
Urban Water Management Planning Act Requirement:

10631(a) Describe the service area – climate.

Temperature

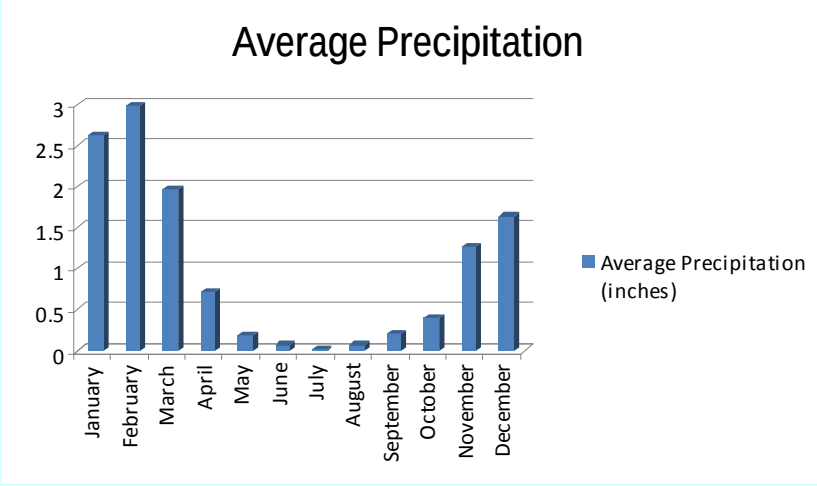
The City of Paramount's semi-arid climate is temperate year-round, with mild and dry summers and wet cool winters. The temperature range is generally moderate as depicted in Figure 2.2.1; the average high temperature is 74 °F and the average minimum annual temperature is 54 °F.

Figure 2.2.1 – Average Temperatures



Precipitation

Figure 2.2.2 – Average Precipitation



The City's annual average precipitation is approximately 12 inches. The average annual monthly precipitation in the City of Paramount is presented in Figure 2.2.2.

Additionally, seasonal variation in temperature, rainfall, and evapotranspiration rate are illustrated in Table 2.2.1.

Table 2.2.1
Climate Data[1] (Period Record: 4/1/1958 – 12/31/2005)

	Avg. High Temp. (F)	Avg. Low Temp. (F)	Avg. Precipitation	Avg. (ETo)[2]
January	66.9	45.6	2.63	1.65
February	67.3	47.3	2.99	2.15
March	68.2	49.7	1.96	3.59
April	71.8	52.3	0.72	4.77
May	73.6	56.8	0.19	5.12
June	77.0	60.2	0.07	5.71
July	82.4	63.6	0.02	5.93
August	84.0	64.9	0.07	5.91
September	82.3	62.9	0.20	4.39
October	78.0	57.9	0.40	3.22
November	72.1	50.4	1.26	2.18
December	67.2	45.3	1.64	1.68

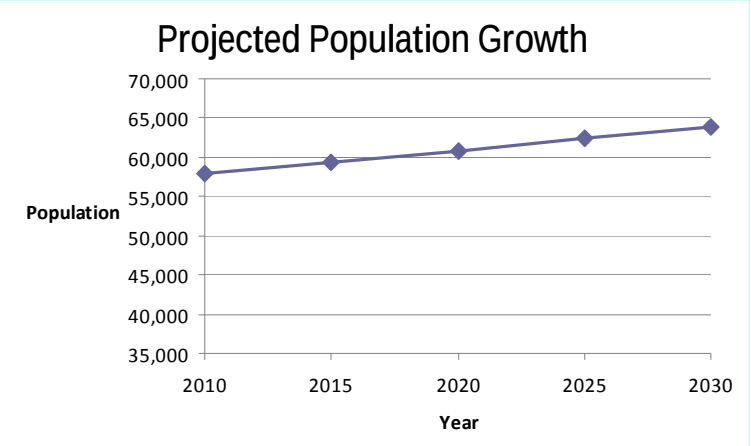
Source: (1) Western Regional Climate Center: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?calong
(2) CIMIS : http://wwwcimis.water.ca.gov – Long Beach Station

2.3 SERVICE AREA POPULATION

Urban Water Management Planning Act Requirement:

10631(a) Describe the service area – current and projected population … The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier …(population projections) shall be in five-year increments to 20 years or as far as data is available.

Figure 2.3.1 – Projected Population Growth



The area was first founded in 1886 when the California Cooperative Colony Tract Company subdivided the land and sold off tracts in what was then known as the town of Clearwater, named after the adjacent lake. This area was then used for farming and dairy uses, the latter of which was spurned on by the influx of dairymen from the

Netherlands and Portugal in the 1920s. During this time, water was obtained through various sources, which included the Los Angeles River, Clearwater Lake, and through groundwater.

By the late 1920s, the Signal Hill oil boom brought on the development of several refineries in the area and several subsequent housing tracts, causing the City to triple in size within five years. In addition, the construction of the Los Angeles Terminal Railroad through the City and heavy industries, which are located adjacent to it, continued on the urbanization of the City. The City has approximately 14,600 dwelling units and there is an average of 4 persons per household.

The City was incorporated in 1957 and population growth increased at a high annual rate of 2.46% between 1960 and 1970 but tailed off to 0.47% between 1970 and 1980. The population took off between 1980 and 2005 growing 60% during this 25-year period as a result of City development. The population in the City of Paramount is expected to increase slightly through 2030. The reason behind this is that opportunities for development are limited as the City has become almost completely built out. Table 2.3.1 show the current and projected population growth.

Table 2.3.1
Population — Current and Projected

	2010	2015	2020	2025	2030	Data source
Service Area Population[1]	57,989	59,400	60,846	62,327	63,844	California DOF E-4 Estimates

[1] Service area population is defined as the population served by the distribution system. See Technical Methodology 2: Service Area Population (2010 UWMP Guidebook, Section M).

2.4 OTHER DEMOGRAPHIC FACTORS

Urban Water Management Planning Act Requirement:

10631(a) Describe the service area – other demographic factors affecting the supplier's water management planning

With decreased new development and increased City water conservation in the past 10 years, the City domestic water demand has been fairly flat while averaging approximately 6.5 million

gallons per day. City water demand is estimated to increase slightly in the future as a result of the projected increase in population. City water demand also fluctuates as a result of climatic variations. For example, between 1996/97 and 2004/05, City water demand increased 7.0% in 1997/98 when rainfall was high (29.7 inches) and decreased 5.0% in 2003/04 when rainfall was low (7.5 inches).